



**8 Secrets for a
Happier,
Healthier
Brain**

— Stephen Sinatra, M.D. —

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8 SECRETS for a Happier, Healthier Brain



In today's world of medical specialties and subspecialties—more than 130 in all—it's easy to think of the heart, brain, intestinal tract, liver, and other organs and systems as separate and independent entities.

As a cardiologist, my primary focus is the cardiovascular system. Yet, I have always maintained a keen interest in the brain for one simple reason—your heart and your brain are closely connected.

Links Between Your Heart & Brain Health

Your heart responds to commands received from your brain, your brain relies on a constant supply of blood delivered via your heart and blood vessels—and the health of each organ is highly dependent on the other.

Studies have linked hypertension, especially in middle age, with an increased likelihood of developing dementia later in life. Narrowing or blockages in the arteries—the primary cause of coronary artery disease—can reduce blood flow to the brain, and strokes have a devastating effect.

What about high cholesterol and the brain? The greatest concentration of cholesterol in your entire body is in your brain, where it plays a pivotal role in both structure and function. Therefore, very low cholesterol levels are not supportive to the brain.

This is one of my major objections to the overuse of cholesterol-lowering statin drugs. In addition to depleting levels of coenzyme Q10 (CoQ10)—which is vital for both the heart and brain—these drugs can cause brain fog, forgetfulness, confusion, mood changes, and global amnesia (sudden temporary memory loss).

Plus, both your brain and your heart are susceptible to damage from toxins, infections, stress, an unhealthy diet, and inactivity. Also, both are vulnerable to oxidative stress, chronic inflammation, and disruptions in blood flow, which can lead to cardiovascular disorders as well as neurodegeneration and impairments in mood and cognition function.

The Good News Is What Helps Your Heart Also Benefits Your Brain

Many of my recommendations for heart health also help to improve the health of your brain.

1. EAT A BRAIN-BOOSTING DIET

To keep your heart and brain healthy, I recommend eating a Pan-Asian Modified Mediterranean (PAMM) diet, which combines the Mediterranean diet with foods from the Asian side of the Pacific Rim. It includes ample amounts of vegetables, fruits, fish, olive oil, and other healthy fats—including salmon, sardines, nuts and seeds, avocados, and DHA-fortified eggs, which support brain health.

While many studies extol the benefits of the Mediterranean diet, two in particular highlight its ability to support healthy brain function. In one study of 4,000 people ages 70 and older, the 14% of American participants following a Mediterranean diet exhibited stronger cognitive and physical functions than the control group.

A 2015 study supported those findings. Researchers studied 334 cognitively healthy adults (average age 77). They divided participants into two groups—those following a Mediterranean diet and those told to reduce their intake of fat. Researchers used cognitive tests to measure participants' attention, memory, brain activity, and executive function at the onset of the study. When they repeated those tests four years later, they found that those following the Mediterranean diet had significantly better scores than the low-fat diet group.

References:

Valls-Pedret C, et al. Mediterranean Diet and Age-Related Cognitive Decline: A Randomized Clinical Trial. *JAMA Intern Med.* 2015;175(7):1094-1103.

Zbeida M, et al. Mediterranean diet and functional indicators among older adults in non-Mediterranean and Mediterranean countries. *J Nutr Health Aging.* 2014;18:411.doi:10.1007/s12603-014-0003-9.

5 foods especially good for brain health include:



Olive Oil: I often call olive oil the “secret sauce” of the Mediterranean diet, contributing to the fact that people in the Mediterranean region have far fewer incidences of cardiovascular disease than those in other cultures. Olive oil also contains antioxidant polyphenols that help to protect the brain against free-radical damage, as well as vitamins E and K which support long-term brain health. Evidence also suggests eating olive oil may help to reduce your risk of developing Alzheimer’s disease.



Wild-Caught Salmon: Salmon contains omega-3 essential fatty acids, including docosahexaenoic acid (DHA) which your brain needs for healthy mental processing. In fact, DHA omega-3s make up 97% of the omega-3 fatty acids in your brain. Other good food sources of DHA include sardines, walnuts, and DHA-fortified eggs.



Eggs: Whether you eat them boiled, scrambled, or in an omelet, eggs nourish your brain with choline, a micronutrient your brain uses to produce acetylcholine, a neurotransmitter that regulates your memory and mood. Plus, eggs contain B vitamins, including B6, B12, and folate, which help to lower homocysteine. This is important since high homocysteine levels are linked with neurodegenerative conditions, including Alzheimer’s.



Spinach: Like eggs, spinach contains folate, which helps to reduce homocysteine levels for healthier brain function. Eating spinach and eggs together—such as in an omelet—packs a one-two punch, helping to reduce homocysteine. Plus, the fats in egg yolks help your body to fully absorb the nutrients in spinach.



Blueberries: This antioxidant-rich berry contains antioxidants called anthocyanins, which enhance brain cell communication. Plus, blueberries help to reduce inflammation, which is vital for brain health as you age.

For a healthy brain, you also want to limit sugar and simple carbohydrates, which can cause inflammation that adversely affects your heart and brain. Plus, when sugar combines with proteins in your blood, they can form advanced glycation end products (AGEs) that can damage the lining of your arteries, including your arteries that lead to your brain.

2. REDUCE STRESS

When you feel stressed, your body releases the “stress hormone” cortisol, which is fine if your stress is short-term and your body quickly returns to normal. Yet, long-term chronic stress affects the section of your brain associated with memory and emotions.

To reduce stress:



Make time for exercise. Just 20 minutes of physical activity—whether it’s a brisk walk around the block or dancing to your favorite songs—releases stress from your muscles and stimulates your body’s creation of feel-good endorphins.



Get plenty of sleep. You can more easily keep stressors in perspective when you’ve had a sound night’s rest. Strive to get 7-8 hours of sleep each night. To help yourself relax at night, avoid alcohol and caffeine in the afternoon, keep your bedroom cool and dark, and have a cup of valerian or chamomile tea before going to sleep.



Connect with others. Be sure to make time for your family, friends, pets, and hobbies to stay balanced and centered.



Try alternate nostril breathing. Even a few minutes of alternate nostril breathing will calm an overstressed autonomic nervous system. First, take a deep breath in and out through your nose. Then use your right thumb to close your right nostril and inhale slowly through your left nostril. While still holding your right nostril closed with your thumb, close your left nostril with your right ring finger so both nostrils are closed, and hold your breath for a moment.

Now open your right nostril and breathe out slowly. Inhale slowly through your right nostril. Hold both nostrils closed again briefly. Then open your left nostril and breathe out slowly. Alternate back and forth for a couple of minutes to destress.



Practice grounding. Grounding—by walking barefoot on the grass, sand, brick, beach, or even your basement floor if it’s concrete—helps to support heart rate variability and helps to balance the autonomic nervous system, which is supportive for heart health.

3. LIMIT THE “INVISIBLE” BRAIN THREAT

Electromagnetic fields (EMFs) are generated by everything from cell phones to wireless networks, and even our home appliances like televisions, microwave ovens, and stereos. This invisible pollution affects all the electrical currents in your body, including those that regulate the beating of your heart and the 500 trillion synapses in your brain. So, limiting your EMF exposure is extremely important.

To limit EMF exposure, use a corded landline instead of a cordless phone and only use your cell phone on speaker. Never put a cell phone up to your ear and near your brain—which is even more important for children since their bodies are highly susceptible to radiation. I also suggest hardwiring your computer using an ethernet connection, instead of Wi-Fi. Plus, avoid using microwave ovens.

4. BE AWARE OF THE STATIN-BRAIN LINK

While several medications can cause symptoms like brain fog, one of the biggest ones to be aware of is cholesterol-lowering statins. In addition to suppressing the production of cholesterol, statins inhibit your body’s production of coenzyme Q10 (CoQ10), which can result in brain fog.

Plus, driving cholesterol too low with statin drugs affects brain function. Your brain needs cholesterol to form the synapses between the neurons in your brain that enable you to think and process information. It’s so important that your brain manufactures its own supply of cholesterol.

Dangerously low levels of LDL cholesterol can cause total global amnesia, where you forget where you are and who you are, for a few minutes or even several hours. This is extremely rare but does happen as I've addressed several cases in my time as a cardiologist.

5. MAINTAIN HEALTHY HDL CHOLESTEROL LEVELS

Maintaining a healthy level of HDL cholesterol not only benefits your heart but helps to keep your brain healthy.

What is healthy HDL cholesterol? The normal range is 40–65 mg/dL for women; 35–65 mg/dL for men. If your HDL level is low, you can raise it by losing weight, getting regular exercise, taking citrus bergamot, eating extra virgin olive oil, avoiding smoking, and drinking red wine in moderation.

6. WATCH YOUR BLOOD PRESSURE

Not only is high blood pressure harmful to your heart, but it can also affect your brain. Research has shown that uncontrolled high blood pressure in mid-life is associated with greater cognitive decline as you age. Plus, approximately 20% of your blood supply goes directly to your brain, so high blood pressure can inhibit your brain's ability to get the oxygen and glucose it needs.

Healthy blood pressure is around 120/80 mmHg. The good news is that many of these same tips that help your brain will benefit your blood pressure, too. This includes eating an anti-inflammatory diet (see PAMM diet, above), exercising, and reducing stress.

7. EXERCISE YOUR WAY TO A SHARPER MIND

Both aerobic and strengthening activities are brain-boosting exercises. Besides improving blood flow to the brain, exercise increases levels of brain-derived neurotrophic factor (BDNF), a growth factor that helps to preserve existing brain neurons and helps with the creation of new ones. So, it's no surprise that studies have shown that long-term exercisers have a sharper memory in middle age.

Exercise also boosts your levels of the feel-good hormones, serotonin and dopamine. This is important because low dopamine levels can adversely affect your ability to focus.

How much exercise does your brain need? The brain health benefits of exercise kick in substantially after 20 minutes of exercise, which is when your respiratory and heart rates hit the “training zone.” Exercise doesn’t need to be rigid or rigorous for you to get good results. A brisk walk is an excellent way to benefit from the brain-boosting power of exercise.

Just one reminder: If you haven’t exercised in a while, you want to get cleared by your doctor first. This is especially important if you have a heart health issue, are a man over 40 or a woman over 45, or have a family history of sudden cardiac death.

8. GET YOUR CREATIVE JUICES FLOWING

Just as your body needs exercise, so does your brain. Exercising your brain, known as cognitive training, can help to improve your working memory, attention, cognitive flexibility, and reasoning. The key to brain exercises is to do them regularly and to include a lot of variety since different tasks exercise different aspects of your mental functioning.

One of the best ways to boost your mental fitness is by learning a new skill, such as cooking, a new language, or how to play an instrument. Puzzles can also exercise your brain, such as playing Sudoku, doing a crossword puzzle, or putting together a jigsaw puzzle. All of these activities help to build your cognitive reserve, which is your brain’s ability to resist and adapt to damage and degeneration.

BRAIN-BOOSTING RECIPES

Salad Niçoise, Sinatra-style

- ½ cup canned, unsalted or low-sodium **white beans**, drained and rinsed
- 6 oz. cooked **wild salmon** (or 6 oz. canned low-sodium salmon)
- 1 large **egg**, hard boiled and sliced
- ½ cup **cherry tomatoes**, halved
- ½ cup cooked **green beans**, cut in 2-inch pieces
- 2 tsp. **lemon juice**
- 1 Tbsp. organic **extra virgin olive oil**
- 4 cups **baby spinach, arugula, or green leaf lettuce**

Toss all ingredients except greens in a medium bowl. Serve on spinach or lettuce. *(Makes 2 servings)*

NUTRITION FACTS PER SERVING

Calories: 271	Total Fat: 10 g	Sodium: 322 mg	Carbohydrate: 13 g	Fiber: 5 g	Protein: 26 g
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Sensational Salmon Salad

- 6 oz. **wild salmon fillets**, cooked and flaked
- 1 Tbsp. organic **extra virgin olive oil**
- 3 cups **romaine lettuce**, chopped
- 1 (6.5 oz.) jar marinated **artichoke hearts**, chopped, retain liquid
- ½ cup **black olives**, drained and sliced
- ¼ cup **Parmesan cheese**, grated

Blend olive oil and liquid from artichoke hearts and set aside for dressing. Place romaine into a large bowl. Add chopped artichokes, olives, and salmon. Just before serving, pour dressing over romaine and toss. Top with cheese. *(Makes 2 entrées or 4 side dish servings)*

NUTRITION FACTS PER SERVING

Calories: 592	Total Fat: 39 g	Sodium: 1,737 mg	Carbohydrate: 10 g	Fiber: 4 g	Protein: 47 g
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Crustless, Wheat-Free Quiche

- 2 tsp. **light olive oil**
- 1 small **zucchini** or **summer squash**, halved lengthwise and thinly sliced
- ½ cup **onion**, chopped
- 2 **eggs**
- ½ cup **red** or **yellow pepper**, chopped
- 5 **egg whites**
- 2 to 3 cloves **garlic**, chopped
- 1 cup **skim milk**
- 1 Tbsp. **fresh basil**, chopped
- ¼ cup **mozzarella cheese**, shredded
- ½ cup **tomato**, chopped

Preheat oven to 350° F. In a medium skillet, heat oil until hot. Add zucchini or squash, onion, pepper, and garlic and sauté until vegetables are tender.

Set aside. In a large bowl whisk together eggs, egg whites, milk, and basil. Stir in sautéed vegetables. Next, divide mixture into 4 individual quiche dishes or a 9" pie plate. Bake for 15 to 20 minutes, or until center is set. Sprinkle each serving with mozzarella cheese and let stand 5 minutes before serving to cool slightly. Top with chopped tomato and serve. *(Makes 4 servings)*

NUTRITION FACTS PER SERVING

Calories: 193	Total Fat: 11 g	Sodium: 213 mg	Carbohydrate: 9 g	Fiber: 1 g	Protein: 13 g
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Salmon with Ginger Marinade

- 4 (6 oz.) **wild salmon fillets**
- 3 Tbsp. low-sodium gluten free **tamari**
- ¼ cup **water**
- 2 **scallions**, chopped
- 1 clove **garlic**, minced
- 2 tsp. **fresh ginger**, grated (or ½ tsp. dried **ginger**)

Mix water, tamari, scallions, garlic, and ginger to make a marinade. Pour over fillets and marinate for 1 hour in the refrigerator. Bake at 400° F for 10 to 12 minutes or until salmon is opaque and flaky, basting fillets halfway through cooking time. *(Makes 4 servings)*

NUTRITION FACTS PER SERVING

Calories: 283	Total Fat: 13 g	Sodium: 810 mg	Carbohydrate: 1 g	Fiber: 0 g	Protein: 34 g
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Asparagus with Tomatoes and Olive Oil

- 1½ lbs. fresh **asparagus**, ends removed and cut into 2-inch pieces
- ¼ cup **light olive oil**
- Freshly ground **black pepper** to taste
- 1 Tbsp. **lemon juice**
- ½ cup **onion**, finely chopped
- 1 clove **garlic**, chopped
- 2 cups fresh **tomatoes**, chopped

In a large saucepan, sauté the onion and garlic in olive oil until the onion is golden and starting to brown. Add asparagus to the onions and garlic. Mix well, cover, and cook on medium-low for about 5 minutes. Add tomatoes and black pepper. Cover and cook about 40 minutes, until asparagus is soft and tomatoes have dissolved into a sauce. Stir in lemon juice. Serve warm. (Can be served over quinoa or short-grain brown rice.) *(Makes 6 servings)*

NUTRITION FACTS PER SERVING

Calories: 283	Total Fat: 13 g	Sodium: 810 mg	Carbohydrate: 1 g	Fiber: 0 g	Protein: 34 g
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Spinach Salad with Pomegranate Vinaigrette

- 3 cups **baby spinach**
- ¼ **red onion**, thinly sliced
- ¼ cup **feta cheese**, crumbled
- 2 Tbsp. **pomegranate juice**
- 1 Tbsp. **cider** or **wine vinegar**
- Drizzle of **honey**
- 1/8 tsp. freshly ground **black pepper**
- 2 Tbsp. **walnut oil/ organic extra virgin olive oil** (1 Tbsp. each)
- **Pomegranate seeds** for garnish (optional)

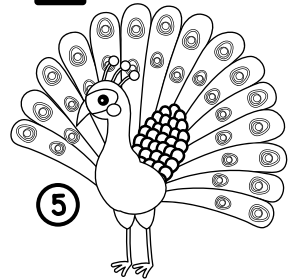
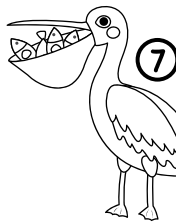
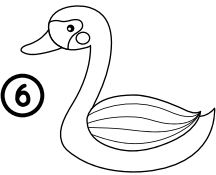
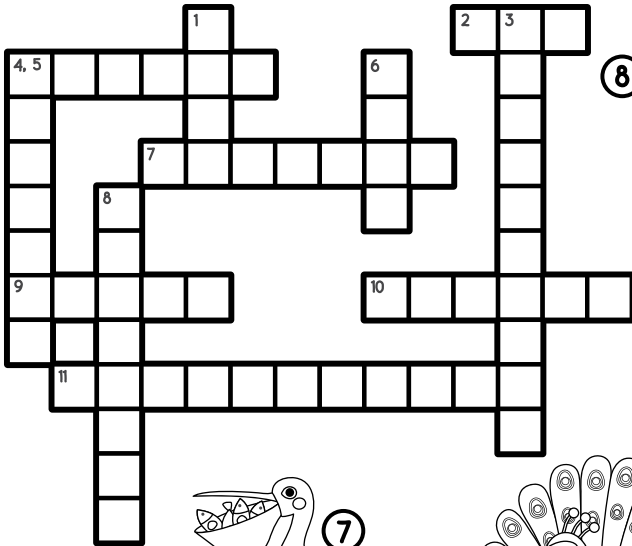
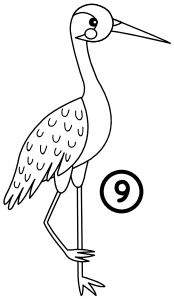
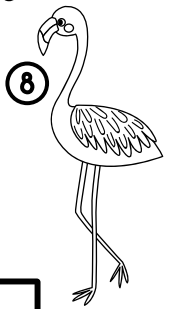
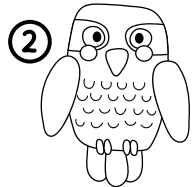
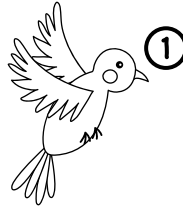
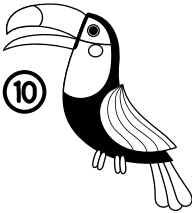
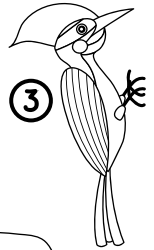
Arrange the spinach on 2 plates and top evenly with sliced onion, feta cheese, and pomegranate seeds (if using). Combine pomegranate juice, vinegar, honey, and black pepper in a small bowl. Add oil in a thin stream while whisking to incorporate. Dress salads and serve. *(Makes 2 servings)*

NUTRITION FACTS PER SERVING

Calories: 196	Total Fat: 17.5 g	Sodium: 208 mg	Carbohydrate: 7 g	Fiber: 2 g	Protein: 4 g
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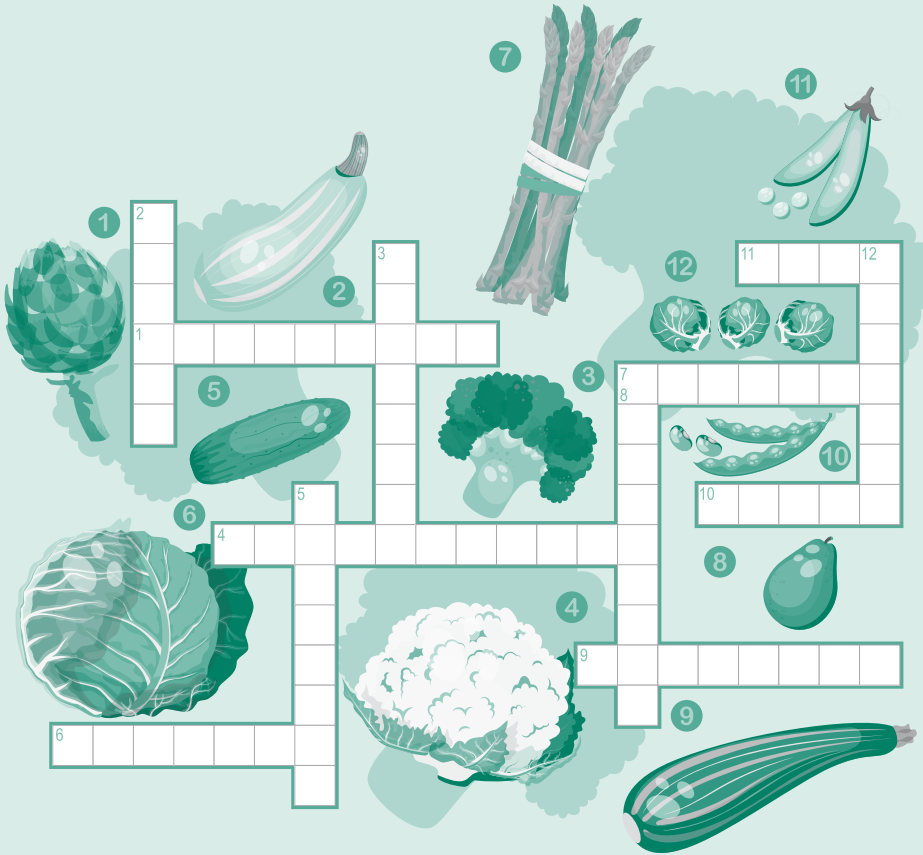
Crossword

Cute Birds



1 DOVE 2 OWL 3 WOODPECKER 4 PARROT
 5 PEACOCK 6 SWAN 7 PELICAN 8 FLAMINGO
 9 CRANE 10 TOUCAN 11 NIGHTINGALE

“Healthy greens”



1. artichoke 2. squash 3. broccoli 4. cauliflower 5. cucumber 6. cabbage 7. asparagus 8. avocado 9. zucchini 10. beans 11. peas 12. sprouts

Dr. Stephen Sinatra

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